

SECTION 882

CHANGEABLE MESSAGE SIGN

882.01. DESCRIPTION.

Work under this item shall include furnishing, maintaining—and delivery to a storage yard designated by the Engineer—a trailer-mounted, Changeable Message Sign or Remote-Controlled Changeable Message Sign, whichever is applicable, at the locations indicated on the plans or as directed by the Engineer.

882.02. MATERIALS.

The internally illuminated variable message sign shall consist of the following:

- (1) A magnetically operated matrix, LED, fiber optic, or lamp matrix message board
- (2) A solar and battery power supply
- (3) Hardware for connection to a 110 volt power source
- (4) An on-board computer
- (5) A computer operated interface, all mounted on a towable, heavy duty trailer

The sign shall have a three line message panel with minimum dimensions of 7 1/2 feet (2.3 m) high and 8 feet (2.5 m) wide for 7 characters per line and 7 1/2 feet (2.3 m) high and 9 1/2 feet (2.9 m) wide for 8 characters per line. The letter height shall not be less than 18 inches (460 mm). The sign shall rotate 360 degrees atop the lift mechanism.

In the raised position, the bottom of the sign shall be at least 7 feet (2.1 m) above the roadway. The sign shall be clearly legible for a distance of 1000 feet (305 m).

The sign shall be controlled by an onboard computer. Upon failure, the sign shall automatically change to a preselected default message which shall remain on display until the problem is corrected. The Remote Controlled Changeable Message Sign unit shall be equipped with a cellular telephone and a security system to prevent unauthorized access. The security system shall allow access only through password or code unique to that sign. If the proper password or code is not entered within 60 seconds of initial telephone contact, the call will be terminated. Remote Control for the Remote Controlled Changeable Message Sign shall be done through a touch tone modem decoder.

Each element in a magnetically operated matrix message board shall consist of a movable flap operated by an electromagnet, which shall be positioned so that by changing polarity the flap is reversed. When closed, the black side shall be exposed; when opened, the colored section shall be exposed.

The lamp matrix, LED, or fiber optic sign shall be equipped with a top-mounted photocell for automatic sign dimming during nighttime use.

The sign shall be capable of storing 100 preprogrammed messages and be able to display any one of those messages upon call via the trailer mounted terminal for both the Changeable Message Sign and the Remote Controlled Changeable Message Sign.

Comply with section 801.02.

882.04. CONSTRUCTION METHODS.

Furnish, place, operate, maintain, and relocate the sign as required. When the sign is no longer required, remove it, at which time it becomes the property of the State, if paid for by each unit. The cellular telephone required for the Remote Controlled Changeable Message Sign shall also become the property of the State.

882.05. METHOD OF MEASUREMENT.

This work will be measured for payment for each *changeable message sign* or *remote controlled changeable message sign*, whichever applies, furnished and installed. Upon completion of the project, portable changeable message signs paid for by each unit shall become the property of the State. The cellular telephone required for the *remote controlled changeable message sign* shall also become the property of the State. Changeable message signs paid for on a sign day basis shall remain property of the contractor. Payment for one sign day shall constitute payment for furnishing, placing at a location designated by the Engineer, maintaining, and operating one acceptable changeable message sign for one day.

882.06. BASIS OF PAYMENT.

This work will be paid for at the contract unit price per sign day for each "Changeable Message Sign" or "Remote Controlled Changeable Message Sign," which price shall include furnishing placing, maintaining, relocating, and removing the sign and its appurtenances, as well as all material, labor, tools, and equipment incidental thereto. Additionally, for the "Remote Controlled Changeable Message Sign," the cellular telephone and telephone charges shall be included.

- (A) CHANGEABLE MESSAGE SIGN EACH
- (B) CHANGEABLE MESSAGE SIGN SIGN DAY
- (C) REMOTE CONTROLLED CHANGEABLE MESSAGE SIGN EACH
- (D) REMOTE CONTROLLED CHANGEABLE MESSAGE SIGN SIGN DAY

Such payment shall be full compensation for furnishing all materials, equipment, labor, and incidentals to complete the work as specified.